

REMARKS/ARGUMENTS

Reexamination and reconsideration of this Application, withdrawal of the rejection, and formal notification of the allowability of all claims as now presented are earnestly solicited in light of the above amendments and remarks that follow.

Claims 1-43 are pending in the application. Claims 22-25 and 29-37 are presently withdrawn from consideration. Claim 1 has been amended to recite that each of the first section and second section of filter material is constructed of a fibrous tow of uniform construction in cross-section and having a uniform particulate removal efficiency in cross-section. Further, claim 1 has been amended to recite that the barrier dividing the compartment into two regions provides a continuous, uninterrupted, and uniform barrier between region A and region B, and that the barrier comprises porous paper or a fibrous tow material. A similar amendment was made to claim 38.

Support for these amendments may be found throughout the specification. For example, Figure 3 clearly illustrates two sections of fibrous tow, 36 and 38, having a uniform construction. Figure 3 also clearly illustrates a barrier 42 that is continuous, uninterrupted, and uniform. In other words, the barrier has an uninterrupted surface that provides a uniform barrier between the two regions as opposed to a barrier having slots therein. It is also clear from the discussion of the segments of filter material and the barrier material on pages 24-26 that the material used to form each section of fibrous tow and the barrier is of uniform construction. In addition, the examples provide further support for this concept, since every example utilizes fibrous tow sections of uniform construction having a single uniform particulate removal efficiency, and in Examples 4 and 6, only a continuous and uninterrupted barrier material is used to form the barrier between the two regions. In addition, new claim 43 has been added, which recites the presence of ventilation holes overlying the compartment. This is clearly described, for example, in Figure 2 and in the accompanying discussion. Applicants respectfully submit that no new matter is introduced by these amendments.

Claims 1-3, 5-17, 19-21, 26-28, and 38-42 stand rejected under 35 U.S.C. §103(a) as being unpatentable over a combination of the previously-cited Litchfield, Noznick, Keith, and Eichel patents, further in view of U.S. Patent No. 5,979,459 to Schneider. Additionally, Claim 4 stands rejected over the above-noted references, further in view of an encyclopedia reference. Claim 18 stands rejected as obvious over the above-noted combination of references, further in view of the Frund patent. Applicants respectfully traverse these rejections as applied to the amended claims.

In order to expedite prosecution, Applicants have further amended independent claims 1 and 38 to further distinguish the claimed invention from the cited art. However, Applicants continue to believe that the claims in their original form are patentably distinct from the cited art.

As noted previously, the Litchfield patent requires the use of impermeable paper barriers having slots cut therein (see column 2, lines 61-67). As noted above, independent claim 1 now recites that the semi-permeable barrier provides a continuous, uninterrupted, and uniform barrier between region A and region B and further notes that the barrier comprises a porous paper or a fibrous tow material. Litchfield clearly fails to teach or suggest such a barrier and, in fact, teaches away from such a barrier by suggesting that the “baffle” should be an impermeable piece of paper having slots therein. Thus, Litchfield specifically teaches away from the use of a porous paper or porous fibrous tow material and also teaches away from a continuous and uninterrupted barrier, opting instead for the use of an impervious paper barrier having slots therein. The purpose of using the slotted baffles constructed of an impermeable material is to create a sinuous path of smoke (see column 4, lines 2-10). Accordingly, the Litchfield patent clearly teaches away from the invention as set forth in independent claim 1.

The Examiner relies upon the Schneider patent as disclosing “a useful way to ventilate a multi segment filter” and the Examiner alleges that Schneider’s “optimized ventilation” provides the necessary motivation for using filter segments having a different denier. Accordingly, the Examiner has concluded that one of ordinary skill would combine the filter materials disclosed by Schneider with the filter design set forth in the Litchfield patent.

As noted above, independent claims 1 and 38 have been amended to recite that the first and second section of filter material are each constructed of a fibrous tow of uniform

construction in cross-section and having a uniform particulate removal efficiency in cross-section. This is clearly shown in the application, such as in Figures 2 and 3, and clearly embodied in the examples.

In contrast, the Schneider patent, as admitted by the Examiner, is directed to an optimized ventilation pattern that requires the use of a coaxial filter element comprising a filter jacket and a filter core, wherein the fibers of the filter jacket have a lower dpf. See column 2, lines 18-35 and Examples 1 and 2. Accordingly, modifying the Litchfield filter with the teachings of the Schneider reference as contemplated in the rejection will not result in the filter set forth in independent claims 1 and 38 because one of the sections of filter material would have to be the coaxial filter element as described in Schneider. Such a filter element does not have a uniform construction in cross-section and does not have a uniform particulate removal efficiency in cross-section.

For at least the reasons set forth above, Applicants respectfully request reconsideration and withdrawal of all rejections of the claims based on a combination of the Litchfield and Schneider patents.

In addition, new claim 43 is separately patentable over the cited art. Claim 43 recites that the filter further comprises a plurality of ventilation holes overlying the compartment. The Schneider patent, which the Examiner relies upon as directed to an optimized ventilation system that provides motivation for using the teachings of the Schneider reference in combination with the remaining references of record, requires the ventilation holes to be overlying the coaxial filter element. See column 1, lines 31-41 and Claim 1. Accordingly, one of ordinary skill in the art combining the teachings of Schneider with Litchfield would include ventilation holes overlying the coaxial filter segment rather than overlying a compartment as set forth in claim 43. For at least this additional reason, claim 43 is separately patentable over the cited art.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required

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therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

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